

(11) Publication number:

01318080 A

PATENT ABSTRACTS OF JAPAN

(21) Application number: 63148219

(51) Intl. Cl.: C09K 17/00

(22) Application date: 17.06.88

(30) Priority:

(43) Date of application publication:

(84) Designated contracting

states:

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(54) GROUT AND ÙNDERGROUND FORMATION OF CURED OBJECT BY USING THE SAME GROUT

(57) Abstract:

PURPOSE: To obtain a grout improved in flow so as to be pumped from the ground by mixing a cement with calcium silicate hydrate powder. a fine aggregate and mixing water.

CONSTITUTION: A calcium material, a silicic material, etc., are

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subjected to a hydration reaction, followed by atmospheric pressure steam curing, a high-temperature high-pressure steam curing, etc., and ground to obtain a calcium silicate hydrate powder (A) of a particle diameter of 1mm or below, represented by the formula (wherein X, Y and Z are positive integers). 100 pts.wt. cement (B) (e.g., portland cement) is mixed with 150-250 pts.wt, component A, 200-500 pts.wt. fine aggregate (C), and 70-110wt.%, based on the total amount of components A and B, mixing water to obtain a grout. Said grout is pumped from the ground into a waterpermeable bag inserted into the ground, whereupon said bag is expanded while excessive water is removed from the grout to form an underground cured Object.

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X (CaO) . Y (SIO) . Z (H2O)

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ANSWER 210 OF 299 CA COPYRIGHT 2004 ACS On STN 113:83906 CA ANEntered STN: 01 Sep 1990 ED Grout and strengthening of soil by the grout TI Motomura, Osamu IΝ Asahi Chemical Industry Co., Ltd., Japan PA Jpn. Kokai Tokkyo Koho, 8 pp. SO CODEN: JKXXAF Patent DT Japanese LA ICM C09K017-00 IC 58-5 (Cement, Concrete, and Related Building Materials) CC FAN.CNT 1 APPLICATION NO. DATE KIND DATE PATENT NO. _____ _____ 19880617 JP 1988-148219 19891222 JP 01318080 A2 19880617 PRAI JP 1988-148219 The grout comprises cement 100, hydrated Ca silicate powder AΒ 150-250, and fine aggregate 200-500 wt. parts with 70-110 wt.% (based on cement and hydrated Ca silicate) mixing water. The grout is pumped into water-permeable bags inserted into soil foundation and hardened to strengthen the foundation. grout cement silicate soil strengthening ST TI Grout (cement, hydrated calcium silicate in, for soil strengthening) Aggregates IT (fine, grout contg., hydrated calcium silicate and aggregate in, for soil strengthen